DIRECTORATE OF HEALTH

Chief Epidemiologist for Iceland

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MULTI-DRUG RESTISTANT TUBERCULOSIS

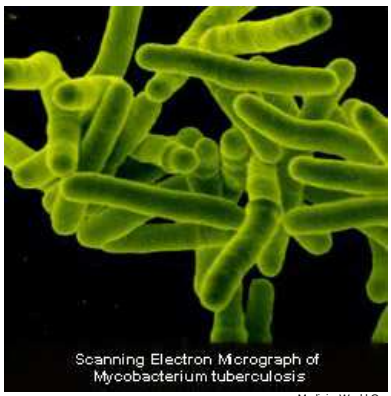
Last November, a patient was admitted to the Landspitali Universtity Hospital (LUH) because of a pulmonary infection. Tests revealed that he was suffering from tuberculosis (TB). The individual in question is a 23-year old Lithuanian male who arrived in Iceland in January 2007. According to information from Lithuania he was diagnosed in his home country with TB in the summer of 2005. A TB treatment was administered but had not been completed by the time he was discharged in March 2006, when he still had active TB.

For reasons unknown, out-patient treatment seems not to have been completed. The strain of TB this patient was suffering from proved resistant to a number of traditional TB drugs. Presumably, his TB is at present also resistant to many of the second-line drugs available, while the outcome of further resistance testing is pending.

The Centre for Communicable Disease Control at the Primary Health Care of the Reykjavik Area is responsible for testing those individuals the patient has been in been in contact with.

Multi-drug resistant TB is a serious problem in many states of the former Soviet Union, particularly the Baltic Countries. Since they became full members of the European Union (EU) and thus the EEA, the citizens of these countries are not required to submit residence and employment permits on arrival in Iceland and, consequently, do not have to submit health certificates. In Rumenia and Bulgaria, TB is a very widespread disease. Although these countries have become members of the EU, their citizens must apply for residence and employment permits in Iceland and thus submit a health certificate testifying to their TB status.

The present situation indicates that it is impossible to test every person coming to Iceland for residence or employment with respect to TB or other diseases, as stipulated in the Procedures for Medical Examination of Immigrants to Iceland. It is important that the primary health care and hospitals in Iceland are on the alert over TB infection among individuals coming from the above-mentioned countries who seek medical assistance because of respiratory symptoms. Earlier issues of EPI-ICE have reported on TB among immigrants, in the July-August 2007 and December 2006 issues.



WWW.INFLUENSA.IS

On 7 December, a new web site, www.influensa.is, was launched as a joint project of the Chief Epidemiologist, the Environment and Food Agency of Iceland, the Agricultural Authority in Iceland, and the Civil Protection Department of the National Commissioner of the Icelandic Police. A sub-web of the Directorate of Health web site, it contains information on seasonal and avian influenza and on response to an influenza pandemic, and as such it played a big role in the influenza pandemic exercise reported on p. 2.

The strain of TB this patient was suffering from proved resistant to a number of traditional TB drugs.

Food products associated with listeriosis are unpasteurised cheeses, raw fish and prepared meat products, such as turkey and paté.

Pandemic influenza exercise

On 10 December 2007 an exercise on pandemic influenza preparedness was held at the Joint National Rescue Centre in Reykjavik. The exercise was lead by the Chief Epidemiologist and the National Commissioner of the Icelandic Police and was based on the draft national pandemic preparedness plan, prepared jointly by the Chief Epidemiologist and the Civil Protection Department of the National Commissioner of the Icelandic Police.

Iceland has been divided into eight epidemiological regions, comprising 15 districts consistent with the 15 police districts. The regional and district epidemiologists and the district police commissioners constitute an operational management for each epidemiological district. The aim of the exercise was to test the communication between the Chief Epidemiologist and the Civil Protection Department on the one hand and the Government of Iceland, the 15 operational managements, the Landspitali University Hospital (LUH) and the Akureyri Hospital, on the other.

A scenario was created mimicking the Spanish flu in 1918. News clips from the Icelandic National Broadcasting Service were played every hour describing the evolvement of the pandemic and its consequences. Various problems had to be solved at different phases of pandemic alert (WHO stages 4–6), involving measures to prevent the pandemic from reaching Iceland and spreading throughout the country, medical treatment and care for the patients, and maintenance of indispensable domestic services and infrastructure.

The exercise lasted nine hours, closing with meetings to assess its results. There was general satisfaction with the execution of the exercise and it certainly provided useful lessons for future pandemic response plans.

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An increase in Listeria cases

From mid October until early December 2007, four cases of *Listeria monocytogenes* were diagnosed at the Department of Microbiology at the LUH. All four cases reside in the capital area and are between 58–85 years old. During the last ten years, a total of four cases of listeriosis have been diagnosed in Iceland, so this is a clear increase in number. The origin of the infection is unknown while an outbreak investigation led by the Chief Epidemiologist is ongoing.

Contaminated food products are the vehicle of infection for *Listeria monocytgenes*, the most likely products being unpasteurised cheeses and raw fish but prepared meat products, such as turkey and paté, can also be contaminated. The food can become contaminated at all stages of the production. The bacteria are killed by heating (boiling and frying).

Consumption of food products contaminated with *Listeria monocytogenes* rarely causes disease in young and healthy people. Those at increased risk are the elderly, persons with a weakened immune system (e.g. receiving immunosuppressive treatment for cancer or chronic disorders) and alcoholics. Another risk group are newborns and foetuses. While a pregnant woman only gets mild symptoms the infection can be life-threatening to her unborn child, leading to miscarriage, premature birth or severe illness in the newborn. Serious infections caused by *Listeria monocytogenes* are bacterial sepsis and meningitis.

The incubation period, i.e. the period from the time of infection until clinical symptoms appear, is on average three weeks but can last from 3–70 days.